

**TEN NEW SPECIES OF *CORTICARINA* REITTER
(COL.: LATRIDIIDAE) FROM CENTRAL AND SOUTH AMERICA**

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IN AN EARLIER PAPER (Johnson, 1990), some general comments were made on the appearance, taxonomy and ecology of the Latridiidae subfamily Corticariinae (which includes the genus *Corticarina* Reitter), after which six new species from diverse parts of the world were described and their male genitalia figured. As a result of that work, I have had the opportunity to study additional material collected recently in Central and South America. This has produced a surprisingly rich number of species of *Corticarina*, most of which are unknown and which are now described and figured. References to works dealing with allied species are given where appropriate, as the genus has not yet been monographed.

Abbreviations have been used to indicate the institutional source of studied material as follows: MM - Manchester Museum; SEM - Snow Entomological Museum, University of Kansas; ZML - Zoological Museum, University of Lund. Where the series permits, duplicates of species will be placed in the Manchester Museum.

***Corticarina ashei* sp.n.**

Length 1.57mm; head breadth 0.34mm; pronotal breadth 0.44mm; elytral breadth 0.70mm; antennal length 0.53mm. Pale brown, legs yellowish brown, antennae pale at the base but increasingly infuscated apically. Antennal segments rather long; 8 about as long as broad, 9 barely longer than broad, 10 slightly longer than broad; club narrow and gradual. Body moderately convex. Pronotum somewhat small, 1.20 times as broad as long, broadest somewhat in front of the middle, the sides somewhat weakly curved; post median depression well marked, lateral impressions distinct; surface weakly shining, alutaceous microsculpture rather strong; pronotal punctures moderate, not deep, rather close, discal punctures about half a diameter apart; hind angles moderately toothed. Elytra long oval, 2.78 times as long as the pronotum and 1.47 times as long as broad, broadest around the middle, sides moderately curved; surface shining, reticulation weak and little distinct; striae punctures moderately large and close, interstices basally barely broader than the striae; elytral pubescence curved and only slightly raised, the hairs c.0.048mm, slightly overlapping. Winged. Male: anterior tibial tooth small, ventral, situated at the apical fifth; ventrite 5 with large semi-circular impression in middle third, apical margin of this somewhat emarginate; aedeagus Fig. 1.

Holotype male. Mexico - Hidalgo: 30.8km S Jacala Hwy. 85, 12.vii.1990, 2050m, shaking oak leaves, leg. J.S. Ashe, K.J. Ahn & R. Leschen (SEM).

Similar in size, colour and shape to *riveti* Johnson from Ecuador (Johnson, 1981), especially due to the somewhat small pronotum. Besides its quite different aedeagus, the male of *ashei* can be easily distinguished by its straight front and middle tibiae and modified ventrite 5.

***Corticarina brooksi* sp.n.**

Length 1.54-1.68mm; head breadth 0.34-0.38mm; pronotal breadth 0.46-0.58mm; elytral breadth 0.68-0.83mm; antennal length 0.58-0.62mm. Colour brown, head and pronotum usually darker than the paler elytra; legs yellowish-brown; antennae with at least the two basal segments yellowish-brown, the stem mostly paler but increasingly infuscated in at least the apical half. Antennal segments rather long, slender; 8 quadrate to slightly longer than broad; 9 conical and markedly longer than broad, 10 about as long as broad, the club narrow and gradual. Body rather markedly convex. Pronotum moderately broad, 1.10-1.39 times as broad as long, broadest around middle, sides moderately rounded; post median depression weakly impressed, lateral impressions absent; surface rather shining, alutaceous microsculpture fine and distinct; puncturation moderate, rather close, discal punctures about half a diameter apart or less; hind angles moderately toothed. Elytra rather ample and long oval, 2.42-2.68 times as long as the pronotum, 1.31-1.48 times as long as broad, broadest in front of the middle, mostly near the basal third; sides moderately curved, somewhat contracted in a straight line apically, curved basally; surface shining, not reticulate; striae punctures moderate and close, interstices basally much broader than striae; elytral pubescence slightly curved, nearly flat, the hairs c.0.048mm, slightly overlapping. Winged. Male: anterior tibial tooth strong, ventral, situated in front of the middle; aedeagus Fig. 2.

Holotype male. Costa Rica - Puntarenas: Monte Verde, 1420m, 25.v.1989, ex. gilled mushrooms on log, leg. J. Ashe, R. Brooks & R. Leschen (SEM).

Paratypes. Costa Rica - Puntarenas: same data but 1450m, ex. polypore on log, 1 male (SEM); same data but 1550m, 26.v.1989, ex. beating, 2 females (SEM); same data but 1400m, 28.v.1989, ex. cycad sporocarp, 1 male, 1 female (SEM); same data but ex. beating, 1 female (SEM).

Allied to the Mexican *baranowskii* Johnson (Johnson, 1990) in colour, especially including the apically infuscated antennae. Distinguishable by the longer antennae, larger size, smaller pronotum, more convex dorsum and somewhat more apically constricted elytral shape. The aedeagus is extremely characteristic in each species.

***Corticarina conjuncta* sp.n.**

Length 1.41-1.62mm; head breadth 0.34-0.37mm; pronotal breadth 0.43-0.54mm; elytral breadth 0.64-0.73mm; antennal length 0.48-0.56mm. Colour pale brown, rarely darker; legs yellowish-brown; antennae pale at the base (at least basal two segments) but increasingly infuscated apically.

Antennal segments rather long; 8 about as long as broad; 9 conical and markedly longer than broad; 10 about as long as broad, the club narrow and gradual. Body rather convex. Pronotum moderately to rather broad, 1.26-1.38 times as broad as long, broadest around middle, sides moderately curved; post median depression moderately impressed, lateral impressions absent; surface weakly shining to rather dull, alutaceous microsculpture usually well marked; puncturation somewhat moderate, close, discal punctures less than half a diameter apart; hind angles moderately toothed. Elytra oval, 2.44-2.60 times as long as the pronotum, 1.30-1.43 times as long as broad, broadest somewhat in front of middle; sides moderately curved, very feebly contracted in a straight line behind middle; surface shining, not reticulate; striae punctures moderate and close, interstices much broader than striae; elytral pubescence slightly curved, nearly flat, the hairs c.0.04mm, slightly overlapping. Winged. Male: anterior tibial tooth moderate, ventral, situated in front of the middle; aedeagus Fig. 3.

Holotype male. Guatemala - Guatemala City, near Univ. del Valle de Guat., 1540m, 6.xi.1991, sifting litter in tropical montane forest, leg. R. Baranowski (ZML).

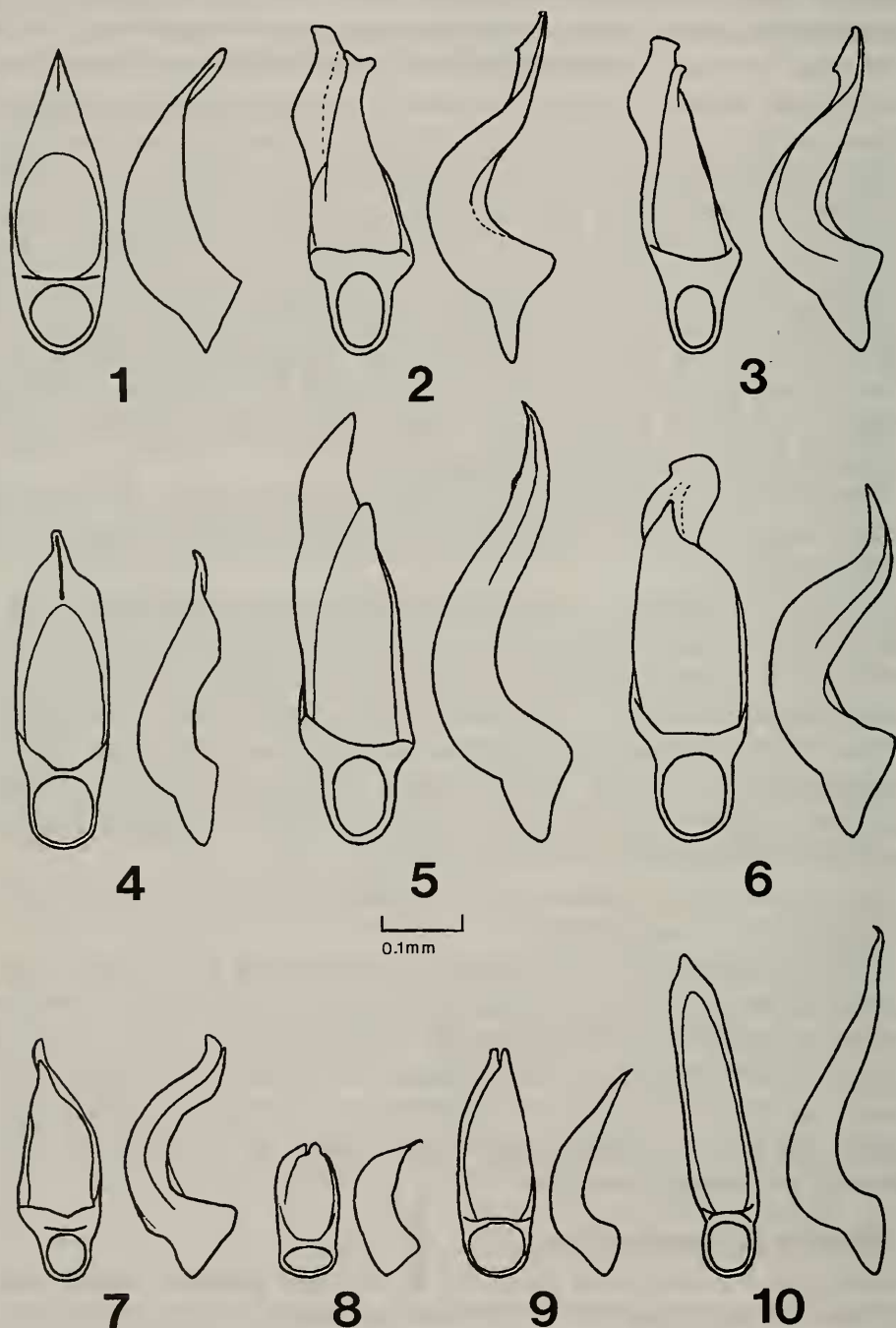
Paratypes. Guatemala - some data as holotype, one female (ZML); 3km E Antigua Guatemala, 1600m, 7.xi.1991, sweeping at road in tropical montane forest, leg. R. Baranowski, two males (ZML); same data but sifting litter in tropical montane forest, two females (ZML); Solola, 2km N Panajachel, 1700m, 15.xi.1991, beating vegetation in tropical montane forest, leg. R. Baranowski, one female (ZML); 5km E Antigua Guatemala, 1780m, 6.xii.1991, sifting litter near small stream in ravine of tropical montane forest, leg. R. Baranowski, one male (ZML).

Other specimens. Guatemala - Panajachel, 4.xii.1973, leg. J. & S. Klapperich, two females (MM).

In general appearance this species is closely allied to the nearctic and central American *cavicollis* (Mannerheim) (see Andrews, 1985) and can only be recognised with certainty by the aedeagus. However, there are some subtle external differences. The pronotum in *conjuncta* is broadest at the middle (in front in *cavicollis*), its puncturation is somewhat coarser and denser, and the more convex elytra usually have less flattened and more distinctly overlapping pubescence.

***Corticarina guatemalica* sp.n.**

Length 1.42-1.57mm; head breadth 0.32-0.35mm; pronotal breadth 0.42-0.50mm; elytral breadth 0.64-0.80mm; antennal length 0.46-0.51mm. Colour dark brown, head and pronotum \pm reddish brown; legs yellowish-brown, apical tarsal segments slightly infuscated; antennae pale at the base (at least basal two segments) but increasingly infuscated apically. Antennal segments rather short; 8 broader than long, 9 quadrate to slightly longer than broad, 10 distinctly broader than long, club somewhat narrow and weakly



Figures 1-10, aedeagi of new species of *Corticarina*, ventral and lateral views: 1, *ashei*; 2, *brooksi*; 3, *conjuncta*; 4, *guatemalica*; 5, *impensa*; 6, *portentosa*; 7, *lescheni*; 8, *inobservata*; 9, *rickardi*; 10, *viatica*. (All figures drawn to the same scale).

abrupt. Body moderately convex. Pronotum somewhat narrow to moderately broad, 1.24-1.38 times as broad as long, broadest at or slightly in front of middle; sides somewhat moderately curved; post median depression moderately impressed, lateral impressions absent; surface weakly shining to rather dull, alutaceous microsculpture strong and distinct; puncturation rather fine, shallow, close to rather sparse, discal punctures half to one diameter apart; hind angles somewhat finely toothed. Elytra long oval, 2.76-2.88 times as long as the pronotum, 1.26-1.49 times as long as broad, broadest at or behind the middle; sides moderately curved; surface shining, not reticulate; stria punctures moderate to somewhat fine and close, interstices much broader than striae; elytral pubescence feebly curved, nearly flat, the hairs c. 0.040-0.048mm, slightly overlapping. Winged. Male: anterior tibial tooth well marked, ventral, situated near the apical quarter; aedeagus Fig. 4.

Holotype male. Guatemala - Puerta Parada, near Guat. City, 1840m, 10.xi.1991, beating vegetation on open ground at small road, leg. R. Baranowski (ZML).

Paratypes. Guatemala - same data as holotype, two males, three females (ZML); same data but 2.xi.1991, sweeping in mixed Cupressus forest, three females (ZML); Solola, 2km N. Panajachel, 1700m, 15.xi.1991, beating vegetation in tropical montane forest, leg. R. Baranowski, three males, three females (ZML); same data but 19.xi.1991, one female (ZML); 5km E Antigua Guatemala, 1780m, 5.xii.1991, beating vegetation in tropical montane forest, leg. R. Baranowski, one male (ZML); same data but 7.xii.1991, sweeping in tropical montane forest, one male, four females (ZML).

Other specimens. Guatemala - Antigua, 30.xi.1973, leg. J. & S. Klapperich, one female (MM); Sierra Madre, 5.xii.1973, by J. & S. Klapperich, one female (MM).

This species is very closely allied to *simoni* Johnson from Venezuela (Johnson, 1981), and apart from the brownish coloration, seems to differ only in its highly distinctive aedeagus.

***Corticarina impensa* sp.n.**

Length 1.44-1.76mm; head breadth 0.32-0.39mm; pronotal breadth 0.46-0.61mm; elytral breadth 0.64-0.82mm; antennal length 0.58-0.64mm. Colour usually pale brown, rarely darker, head and pronotum often slightly darker than the paler elytra; legs and antennae entirely yellowish-brown, except for the antennal club which is a slightly darker brown. Antennal segments long and slender; 8 slightly longer than broad; 9 conical and markedly longer than broad, 10 longer than broad although slightly shorter than 9, the club narrow and gradual. Body rather markedly convex. Pronotum rather broad, 1.26-1.42 times as broad as long, broadest around middle, sides rather strongly rounded; post median depression moderately

impressed, lateral impressions absent; surface rather shining, alutaceous microsculpture fine and distinct; puncturation somewhat fine to moderate, close, discal punctures usually less than half a diameter apart; hind angles moderately toothed. Elytra rather ample and long oval, 2.35-2.48 times as long as the pronotum, 1.33-1.41 times as long as broad, broadest in front of the middle, near the basal third; sides moderately curved, somewhat contracted in a straight line apically, curved basally; surface shining, not reticulate; strial punctures moderate and close, interstices basally much broader than striae; elytral pubescence slightly curved, nearly flat, the hairs c. 0.048-0.056mm, overlapping. Winged. Male: anterior tibial tooth strong, ventral, situated in front of the middle; aedeagus Fig. 5.

Holotype male. Guatemala - 5km E Antigua Guatemala, 1780m, 4.xi.1991, sifting litter near small stream in ravine of tropical montane forest, leg. R. Baranowski (ZML).

Paratypes. Guatemala - same data as holotype, one male (ZML); same data but 5.xii.1991, one male, one female (ZML); same data but 6.xii.1991, one female (ZML); 3km E Antigua Guatemala, 1600m, 7.xi.1991, sifting litter in tropical montane forest, leg. R. Baranowski, one female (ZML); Puerta Parada near Guatemala City, 1840m, 2.xi.1991, sweeping in mixed Cupressus forest, leg. R. Baranowski, one male (ZML); Solola, 4km N Panajachel, 1900m, 11.xi.1991, sifting litter in tropical montane forest, leg. R. Baranowski, one female (ZML); Solola, 2km N Panajachel, 1700m, 15.xi.1991, sifting litter near small stream in tropical montane forest, leg. R. Baranowski, one female (ZML).

This large and broad species comes near to the Panamanian *ignea* Johnson (Johnson, 1979). It is larger than *ignea*, has a broader pronotum, longer antennae and somewhat longer and less flattened elytral pubescence. The aedeagus of *impensa* is highly characteristic, being unlike that of any other neotropical species known to me, although there are related species in North America, eg. *scissa* LeConte (Andrews, 1985).

***Corticarina inobservata* sp.n.**

Length 1.39-1.50mm; head breadth 0.32-0.34mm; pronotal breadth 0.44-0.45mm; elytral breadth 0.62-0.66mm; antennal length 0.50-0.51mm. Colour dark brownish-black, rarely dark-brown; legs yellowish-brown; antennae with basal segment pale brown, segment 2 yellowish, 3-7 increasingly infuscated apically, club dark brown. Antennal segments moderately long, slender; segment 8 broader than long, 9 slightly longer than broad, 10 about as long as broad, club rather narrow and gradual. Body somewhat strongly convex. Pronotum somewhat moderately broad, 1.18-1.21 times as broad as long, broadest slightly in front of middle, sides almost moderately curved; post median depression feeble, lateral impressions weak; surface little shining, alutaceous microsculpture distinct; puncturation

somewhat fine, moderately close, shallow; hind angles somewhat finely toothed. Elytra rather short oval, 2.43-2.49 times as long as the pronotum, 1.42-1.47 times as long as broad, broadest around middle, rarely before; humeri effaced, callus absent; sides moderately curved; surface shining not reticulate, rarely \pm shagreened; strial punctures moderate and close, interstices basally slightly wider than striae; elytral pubescence slightly curved, a little raised, the hairs c. 0.056mm, slightly overlapping. Brachypterous, wings narrower and distinctly shorter than an elytron. Male: anterior tibial tooth small, ventral, situated in front of the middle; aedeagus Fig. 8.

Holotype male. Mexico - Oaxaca: 53km S Miahuatlan, 2300m, 18.xi.1989, sifting deep litter near small stream in mixed montane forest, leg. R. Baranowski (ZML).

Paratypes. Mexico - Oaxaca: same data, two males (ZML).

This brachypterous species is extremely closely allied to *reidi* Johnson, known only from the unique Colombian holotype (Johnson, 1990). It may be most reliably distinguished from the latter species by its much smaller size and highly distinctive aedeagus.

***Corticarina lescheni* sp.n.**

Length 1.25-1.44mm; head breadth 0.31-0.34mm; pronotal breadth 0.46-0.50mm; elytral breadth 0.66-0.70mm; antennal length 0.43-0.46mm. Pale reddish-brown, legs and antennae paler, more yellowish. Antennal segments short; 8 broader than long, 9 almost as long as broad, 10 conspicuously broader than long, the club moderately marked. Body somewhat strongly convex. Pronotum short and broad, 1.38-1.45 times as broad as long, broadest somewhat in front of the middle, the sides somewhat strongly rounded; post median depression shallowly impressed; lateral impressions absent; surface weakly shining, alutaceous microsculpture well marked; pronotal puncturation fine, very shallow and close, discal punctures c. one diameter apart; hind angles moderately toothed. Elytra short oval, 2.52-2.67 times as long as the pronotum and 1.26-1.31 times as long as broad, broadest in front of middle, sides rather strongly rounded; somewhat constricted behind; surface shining, reticulation weak and little distinct; strial punctures rather fine and close, interstices basally much broader than striae; elytral pubescence fine and almost flat, the hairs c. 0.024-0.032mm, barely overlapping. Winged. Male: anterior tibial tooth moderate, ventral, situated well in front of the middle; aedeagus Fig. 7.

Holotype male. Peru - Tambopata Prov.: Madre de Dios Dpto., 15km NE Puerto, Maldonado Reserva Cuzco Amazonico, 12° 33'S, 69° 03'W, 200m, swamp trail, ex. flight intercept trap, 16.vii.1989, leg. J.S. Ashe & R.A. Leschen (SEM).

Paratypes. Peru - same data as holotype, one female (SEM); same data but 10.vii.1989, no trail name, one male, two females (SEM); same data but Plot Z1, trail 26, one female (SEM).

In external appearance, this species is very closely allied to *amoena* Johnson (Johnson, 1981), described from Panama. It may be distinguished from that species by its larger size and different aedeagus.

***Corticarina portentosa* sp.n.**

Length 1.55-1.66mm; head breadth 0.36-0.37mm; pronotal breadth 0.48-0.50mm; elytral breadth 0.70-0.72mm; antennal length 0.50-0.58mm. Colour pale yellowish-brown, legs and basal third or so of antennae paler still. Antennal segments rather long, slender; 8 almost as broad as long; 9 conical and distinctly longer than broad; 10 only slightly longer than broad, the club narrow and gradual. Body moderately convex. Pronotum moderately broad, 1.29-1.33 times as broad as long, broadest slightly in front of middle, the sides somewhat weakly curved; post median depression moderately impressed, lateral impressions distinct; surface little shining, alutaceous microsculpture rather strong; puncturation moderate, rather close, discal punctures about half a diameter apart or less; hind angles moderately toothed. Elytra long oval, 2.80-2.88 times as long as the pronotum, 1.43-1.53 times as long as broad, broadest around to behind the middle, sides rather weakly curved; surface rather shining, not or indistinctly reticulate; striae punctures somewhat moderate and close, interstices basally much broader than striae; elytral pubescence distinctly curved, somewhat raised, the hairs c. 0.048-0.056mm, strongly overlapping. Winged. Male: anterior tibial tooth strong and ventral, situated in front of the middle; aedeagus Fig. 6.

Holotype male. Mexico - Oaxaca: 21km N Villa Diaz Ordaz, 3100m, 10.ix.1990, sifting litter in boreal forest, leg. R. Baranowski (ZML).

Paratype. Mexico - Oaxaca: same data but 2750m, sifting litter in pine/oak forest, one male (ZML).

The pale coloration, somewhat narrow body shape and rather weakly curved elytral sides seem to place this species near the Brazilian *beloni* Johnson (Johnson, 1981). However, *portentosa* is more yellowish, has a smaller pronotum, longer antennae and longer and more raised, overlapping, elytral pubescence. The aedeagus is quite different in both species.

***Corticarina rickardi* sp.n.**

Length 1.44-1.63mm; head breadth 0.31-0.37mm; pronotal breadth 0.43-0.51mm; elytral breadth 0.69-0.78mm; antennal length 0.50-0.58mm. Colour dark, head and pronotum usually brownish-black, elytra dark brown; legs yellowish-brown, not or feebly infuscated; antennae with the basal segment pale to dark brown, 2 yellowish-brown, the stem paler basally but increasingly infuscated in the apical half or so. Antennal segments moderately long, slender; 8 quadrate to slightly longer than broad; 9 conical and markedly longer than broad; 10 about as long as broad, the club narrow and gradual. Body rather markedly convex. Pronotum moderately broad, 1.20-1.27 times as broad as long, broadest around to somewhat in front of middle, sides moderately rounded; post median depression strongly

impressed, lateral impressions weak but usually distinct; surface rather uneven, shining, alutaceous microsculpture indistinct; puncturation moderate, very close, spaces between punctures somewhat ridge-like; hind angles moderately toothed. Elytra somewhat short oval, 2.60-2.75 times as long as the pronotum, 1.36-1.47 times as long as broad, broadest around middle, sides somewhat strongly curved; surface shining, not reticulate; striae punctures somewhat coarse and close, interstices basally narrower than striae; elytral pubescence slightly curved, nearly flat, the hairs c. 0.056-0.064mm, slightly overlapping. Winged. Male: anterior tibial tooth moderate, ventral, situated close to the apical third; aedeagus Fig. 9.

Holotype male. Mexico - Oaxaca: 53km S Miahuatlan, 2300m, 18.xi.1989, sifting deep litter near small stream in mixed montane forest, leg. R. Baranowski (ZML).

Paratypes. Mexico - same data, five males, two females (ZML).

In size, colour and shape, this species approaches the Mexican *baranowskii* Johnson (Johnson, 1990). Apart from the highly characteristic aedeagus, it may be separated from *baranowskii* by its more closely punctured pronotum whose surface is more uneven, lacks distinct microsculpture, and has distinct lateral impressions.

***Corticarina viatica* sp.n.**

Length 1.57-1.68mm; head breadth 0.35-0.38mm; pronotal breadth 0.45-0.47mm; elytral breadth 0.69-0.74mm; antennal length 0.50-0.56mm. Colour dark, head and pronotum black, elytra brownish-black; legs dark brown, tibiae and tarsi \pm infuscated; antennae with the basal segment dark brownish-black, segment 2 yellowish-brown, remaining segments increasingly infuscated, club blackish. Antennal segments rather long; 8 about as long as broad; 9 more or less longer than broad; 10 about as long as broad; club narrow and gradual. Body moderately convex. Pronotum somewhat small, 1.19-1.28 times as broad as long, broadest around or somewhat in front of the middle, the sides somewhat moderately curved; post median depression well marked, lateral impressions rather weak; surface weakly shining, alutaceous microsculpture fine and distinct; pronotal punctures moderate, not deep, rather close, discal punctures mostly up to half a diameter apart; hind angles moderately toothed. Elytra long oval, 2.87-3.04 times as long as the pronotum and 1.54-1.59 times as long as broad, broadest around middle, sides somewhat weakly curved; surface shining, reticulation lacking; striae punctures moderately large and close, interstices basally broader than striae; elytral pubescence slightly curved, nearly flat, the hairs c. 0.04mm, barely overlapping. Winged. Male: anterior tibial tooth small, ventral, situated at the apical fifth; ventrite 5 simple; aedeagus Fig. 10.

Holotype male. Mexico - Oaxaca: 20km N Oaxaca City, hwy 175, 2600m, 12.ix.1990, sweeping at roadside, pine/oak forest, leg. R. Baranowski (ZML).

Paratypes. Mexico - Oaxaca: 21km N Villa Diaz Ordaz, 3100m, 20.ix.1990, sifting litter in boreal forest, leg. R. Baranowski, one female (ZML); same data but 10.ix.1990, one female (ZML); same data but 7.ix.1990, sweeping at roadside in boreal forest, one female (ZML).

Very closely allied to *ashei* sp.n. in general appearance but distinguishable by its blacker coloration, darker legs and antennae, flatter elytral pubescence, as well as by the simple ventrite five and characteristic aedeagus of the male.

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Ladybirds (Col.: Coccinellidae) attracted to light

It may be of interest that the 60 beetle species caught during the years 1994, 1995 and 1996 in a mercury-vapour light-trap run by one of us (JVD) in his garden in Wimbledon, Surrey included six ladybirds, viz:

Adalia bipunctata (L.) – two in July 1995

A. 10-punctata (L.) – one in August 1996

Harmonia quadripunctata (Pontoppidan) – one in July 1995

Anatis ocellata (L.) – one in August 1995

Myrrha 18-guttata (L.) – one in July 1996

Halyzia 16-punctata (L.) – four in July 1996

The capture in the trap of several examples of *H. 16-guttata* is in keeping with the report of Majerus and Williams (1989 *Ent. Gaz.* **40**: 71-78) that this is a species attracted to mercury vapour light and with a similar observation